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ABSTRACT

This brochure explains the basic structures, content, and methodologies, which have been established by the Colombo Plan Staff College for Technician Training for its activities in its first two years of operation. The role of a variety of technicians is explained, along with their importance in developing countries. The problems of technician education development are examined with emphasis on several major concerns. A short explanation of the Staff College (SC) is included. The areas of study (planning of training systems, curriculum design and development, and institution planning and management) are discussed. SC courses are described, along with course strategies and courses designed specifically for individual developing countries. Research and development projects are briefly examined. Short descriptions are included of the library and documentation facilities, the College faculty, and funding and aid. Lists include SC governance, governing board, participants in SC courses, and visiting specialists who assisted on SC courses. Charts illustrate the participation pattern in SC courses and in country courses. Photographs of SC staff and course participants accompany the text. (CT)

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The Colombo Plan Staff College For Technician Education was established in April 1974 as a joint and cooperative enterprise of 27 member countries, and became operational in March/April 1975.

Although for nearly twenty years, the Colombo Plan has been actively promoting technical manpower training as an essential part of national economic development strategies it has given an institutional form to this activity for the first time by setting up the Staff College.

Two years are too short a period in the life of any institution. Especially so for the Staff College which is a unique institution in many ways. Yet, in these two years, the Staff College has reached out to all the 21 countries of the region and built up a constituency of 400 key persons who are responsible for technician education improvement in their respective countries.

This brochure explains the basic structures, content and methodologies which have been established by the Staff College for its activities in the last two years.

IN PERSPECTIVE

COLOMBO PLAN STAFF COLLEGE FOR TECHNICIAN EDUCATION: FIRST TWO YEARS

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Colombo Plan Staff College on Paterson Road.

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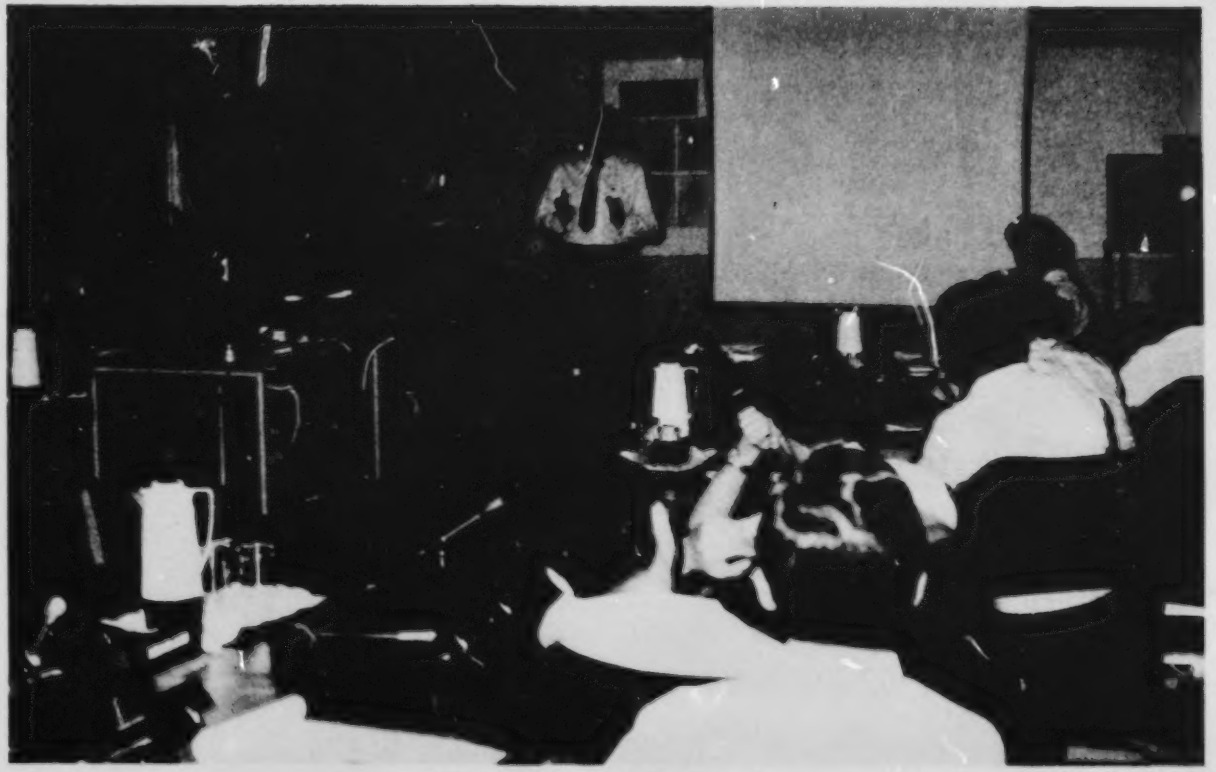
Introduction

It is axiomatic in economic planning for developing countries that science and technology should play a decisive role in increasing agricultural and industrial productivity. This is the more so, because we must do in a few decades what it has taken several centuries to achieve in the developed countries. However, the mere availability of science and technology does not guarantee that the economic development of a country will automatically occur. If science and technology are to contribute to productive processes, special talents must be developed. The people must be trained to apply the knowledge and skills effectively on a broad front. The availability of people with the necessary skills determines the direction and rate of economic growth in all developing countries.

In brief, the most important investment any country can make, whatever its stage of economic development, is in its human resources – in the education, training and energising of its people for productive work. Here is the heart of the solution. ■



Plenary session – Lecture Demonstration.

Role of Technicians

At one end of the manpower spectrum are engineers, scientists and managers; at the other end, skilled workers and operatives. In between is a group of technical personnel which plays a special role and so merits special attention. This group covers many jobs and bears many position titles: technician, supervisor, foreman, overseer, section officer, technical assistant, technician engineer and so on. This group, technicians, is responsible for applying known technology to a wide range of field operations in production and construction, testing and development, installing and running engineering plant, drafting and designing products, estimating cost, selling and advising customers on the use of engineering and scientific equipment. Often the technician acts as liaison between engineer and skilled craftsman. It is his job to interpret the engineer's plans and designs, to determine the production and construction techniques to be used and to choose the tools and machines best suited to the job. He is also responsible for a host of other semi-professional functions that he carries out on his own initiative and under the general supervision of a professional engineer or scientist.

These functions imply that technicians are a broad group. At one end, are technicians who perform near professional functions similar to those of engineers; at the other end, technicians who are nearer craftsmen and skilled workers. In between are technicians who perform jobs which require different knowledge-skill mixes. In recent years, the technician, as we call him, is taking the place of the engineer as we have known him, as the engineer of today and tomorrow increasingly takes his new place and

Participants in Plenary Sessions for Main Theme Presentations.

becomes more and more concerned with the scientific problems and opportunities of the expanding technological universe.

Middle level manpower is equally important in non-technical fields. This group consists of those "who have acquired detailed knowledge and skills in one specialist field, or knowledge and skills to a lesser degree in more than one specialist field; are required to exercise judgement, in the sense of both diagnosis and appraisal, and initiative in their work; are frequently called upon to supervise the work of others; and have an appreciation of the environment beyond the immediate limits of their duties".

All countries do therefore need technicians. To a special degree the need is urgent in developing countries. ■

Problems of Technician Education Development

The 21 Colombo Plan regional countries cover a geographical area of about 5.83m sq miles and have a population of over 1.15 billion people. Both in terms of population and in terms of geographical coverage these countries constitute nearly 60 per cent of the developing world.

All these developing countries are engaged in the stupendous task of rebuilding their national economy to provide the millions of their people with more and better food, better housing, better health and more education. In essence, a quality life which not merely meets their basic needs, but fulfils their rising aspirations. In this effort, the countries have recognised the importance of technical manpower, particularly technicians and established their own systems of technician education and training to meet their current and future manpower needs.

The technician education and training system of each country has its own integrity, because it must reflect the country's socio-economic development, technology level and other factors. There are therefore a variety of technician courses in the region with their own goals, structures, curricular offerings and other features. The differences notwithstanding, there are many common areas of concern to all countries in which the nature of the problems confronting the countries is the same. It is in these common areas that the countries must make determined efforts to improve the efficiency and effectiveness of their technician education and training systems. Particular attention needs to be given to the following:

(a) The national system of technician education and

Participants in Plenary sessions presenting Syndicate Reports.

training of a country must be relevant to the country's socio-economic needs. That is, it must be related to employment in industry, commerce, government and other economic sectors and fulfil employers' needs for technical manpower. This implies that each country must determine the type of technicians needed, where they are going to be employed, what their functions will be and what type of education and training is best suited. In line with these objectives, the curriculum must be designed and implemented and the results evaluated on a continuing basis.

(b) As technology advances or changes the technician who is trained today must be capable of adapting himself to new situations, be able to transfer his knowledge and skills from known to unknown situations. His education must therefore prepare him not merely for here and now needs of industry, but for the challenges that he is likely to face in his career.

(c) A large number of working technicians in all countries have had no formal education and come up the hard way by learning on the job. As these technicians advance in their career, they must be equipped with the knowledge and skills which will help them to adequately perform in their jobs. The technician education and training system of a country must therefore be responsive to this need and provide for the further education of working technicians.

Participants in Syndicate Discussion. Syndicates are an important part of course strategy.

(d) Engineers, scientists and technicians play an important role in a country's development. Scientific and technical education and training is therefore a part of a country's both social and economic systems and influenced by a complex of forces which govern the life, work and aspirations of a people. The educational system must be responsive to these forces and mould the attitudes, values and work styles of future technicians so that they may serve not merely as economically useful members; they must function as social change agents.

(e) The interaction of technician education with economic system implies that it should establish purposeful cooperation with industry to vitalise its curricular offerings, teaching-learning resources and improve its relevance and usefulness.

(f) All forms of technical education and training are expensive, both in terms of physical plant and other fixed assets and in terms of operating costs. Management of the resources available and their optimisation are therefore important. More so for developing countries whose resources are not only extremely constrained but uncertain from year to year.

All these factors and more demand an integrated approach to planning, organising and managing technician education and training within each country's national setting. To this end, administrators, heads of institutions, senior teachers, teacher educators and other key persons must be trained on a continuing basis so that they may function in a coordinated manner with well defined objectives. ■

Participants in Syndicate Discussion. Syndicates are an important part of course strategy.

Purpose of Staff College

The purpose of the Staff College is:

(a) to provide courses of further professional education and training for technician teacher educators, senior technician teachers, heads of technician institutions and persons responsible for the planning, development and administration of technician education in the Colombo Plan regional countries;

(b) to conduct study conferences for directors of technical education, principals of technical institutions and other key personnel from industry and education at which problems of technician education and training may be examined in depth;

(c) to assist regional countries and their institutions in staff and curriculum development and in more effective utilisation of educational and training processes;

(d) to promote, coordinate and undertake research into special problems of technician education and training, including teacher education in the region;

(e) to act as a clearing house for the collection and dissemination of information on all aspects of technician education and training. ■

Governing Board Members Meeting Participants in Syndicates.

Areas of Study

Technician education and training is a system in transition throughout the world. As technology advances in each country the manpower perspective changes and the system has to respond with a surer understanding of the knowledge, skills and capabilities which technicians should possess. In order to establish therefore basic structures for system planning and development, the Staff College has identified the following main areas of study:

Planning of Technician Education and Training Systems

If technician education and training has to be relevant to a country's socio-economic development needs, a systematic approach to planning is a pre-requisite. Systematic approach implies a correct understanding of who a technician is, where he works and what he does, then determining what kind of education and training are best suited.

Studies in this area include:

Manpower planning processes for national economic development and their application to technical manpower.

Identification of technician occupations and activity analysis of technician functions.

Determination of objectives of technician education and training and structuring of technician courses.

Organisation of institutional and non-institutional forms of technician education and training, including apprenticeship, block release and sandwich courses.

Objectives and mechanisms of technician institution and industry cooperation.

Technician Curriculum Design and Cirriculum Development

Technician Curriculum must reflect the sum total of the knowledge, skills, attitudes and other capabilities required for different technician occupations and the methods and means of providing them within the system. Curriculum design and development is therefore the crux of technician education and training processes. In this activity, curriculum designers must draw upon a variety of expertise available from subject-fields of technician specialities, psychology of learning, educational technology, systems engineering, communication media etc.

Integrated approach to curriculum design and development will include studies in:

Principles and processes of curriculum design.

Derivation of curricular/instructional objectives from technician activity analysis and determination of knowledge-skill mixes for different types of technician occupations.

Design of technician curricular offerings, including core curriculum, technical arts and technician specialities.

Instructional management and teaching-learning processes; taxonomy of learning outcomes; preparation of teaching units and instructional tasks; selection of instructional strategies and resources; development of learning packages.

Innovations: concept of innovations; innovation processes in technician education; main areas of innovations in technician curricula; barriers to innovations and their removal.

Curriculum analysis and curriculum evaluation.

Testing and Evaluation in Technician Education

Testing, examining and evaluation are of vital importance in all education systems, because they are basic to decision making in instructional processes, student performance, counselling and guidance, placement, curriculum reform and so on. Many methods of testing and evaluation are in practice throughout the world, each with its own merits and demerits, but nevertheless, all countries are continually searching for more reliable, practicable and effective methods to improve their education systems.

Studies in this area cover the following aspects:

Concepts and principles of measurement and evaluation in education; types and sources of errors and their influence; statistical methods for evaluation decisions and interpretations.

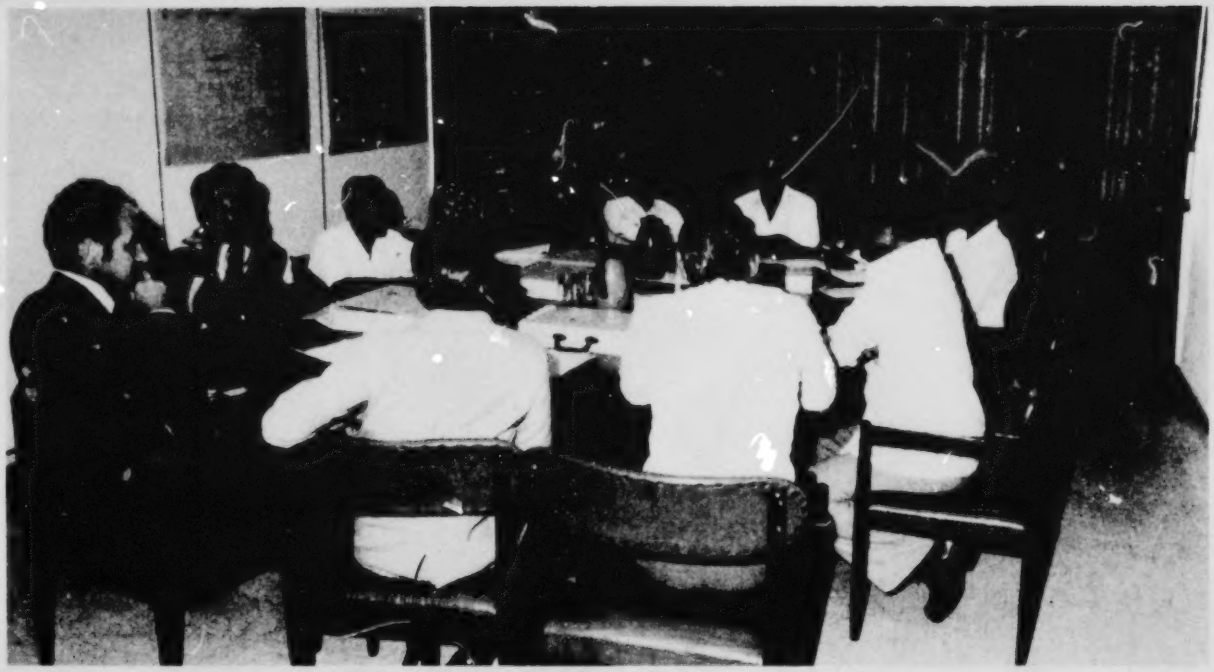
Types of test instruments and their characteristics; types of test items and methods of test planning; comprehen-

sive plan of evaluation and integrated use of different types of tests and test items.

Evaluation methods in current use in technician education and their strengths and weaknesses; new developments in evaluation and their application to existing and emerging problems and strategies for improvement.

Technician Institution Planning and Management

A technical institute is not just an assembly of buildings in which equipment is collected and dispersed into laboratories and workshops, and students recruited each year and put through the mill. It reflects the technician education system which has been planned for a country, in actual operation. A technical institute is a well structured organisation in which various components like teachers, students, curricula and teaching-learning processes are all in a dynamic relationship and the organisation as a whole functions towards well defined objectives. Therefore, how a technician institute is planned, how it is organised and managed, how it interacts with industry, society and government, how all these elements of the environment influence the institution and are in turn influenced by it, determine the success of technician education and training in a country.



Governing Board Members Meeting Participants in Syndicates.

Governing Board Members Meeting Participants during course.

Other aspects of technician institutions include planning and equipping laboratories and workshops according to curricular needs, provision of services, library and facilities for students' extra-curricular activities.

Then there is the academic management of institutions including recruitment of teachers and their training and development, motivation and morale building, student welfare, student discipline and student counselling, modifying and improving curricula to meet changing technician needs, establishing and maintaining cooperation with industry, optimisation of resource utilisation and so on.

Studies in this area cover all these aspects and in particular:

Planning and organising technician institutions; criteria and norms for buildings, equipment and support facilities.

Faculty structure, job descriptions and staff selection.

Staff appraisal and staff development.

Determination of institution's objectives, organisational development, delegation of authority, span of control, accountability, decision making and leadership. Resource optimisation and costs of education. Innovations and management of change. ■

Governing Board Members Meeting Participants during course.

Staff College Courses

In these areas of technician education planning, curriculum design and development and management of institutions, the Staff College courses are specifically structured according to the needs of administrators and planners, heads of institutions, senior teachers, teacher educators and other key personnel in the Colombo Plan regional countries. In the last two years seven such courses have been conducted as shown below:

Study Conference of Directors/Senior Administrators of Technician Education

Three conferences each of two weeks duration.

The purpose of the conferences is to bring together key persons who are responsible for the administration of technician education at national/regional level:

(a) to evolve a conceptual framework of policy formulations in which technician education systems are best developed, both qualitatively and quantitatively;

(b) to analyse major factors involved in planning technician education systems as a means of national socio-economic development and synthesise them into a coherent planning process;

(c) to develop the type and forms of organisational set ups along with associated administrative responsibilities which will ensure successful implementation and management of technician education systems.

The Study Conferences have also provided the participants with an opportunity to cross-fertilise their ideas and experiences and develop analytic skills and methods which will help them to solve problems of technician education in their national situations.

Course in Technician Education Planning and Development

Two courses each of six weeks duration.

These courses are addressed specifically to heads of technician institutions, heads of departments in technician institutions, administrators of technician education and other key persons who are responsible for planning and managing technician education and training at institutional level.

The main purpose of the course is to enable participants:

(a) to analyse the major factors involved in planning technician education and training systems and synthesise them into a planning methodology;

(b) to develop those management concepts and techniques which are appropriate to educational systems and apply them to efficient organisation and operation of technician education and training within an institutional setting;

(c) to determine evaluative criteria for institutional performance with particular reference to curriculum, teaching-learning processes and resource utilisation.

Course in Curriculum Design and Staff Development

Two courses each of eight weeks duration.

These courses addressed to senior technician teachers, teacher educators and heads of technician institutions are designed as a systematic study of the methodologies and techniques of technician education processes, curriculum design and in-service training of teachers.

Specifically, the purpose of the courses is:

(a) to induct technician teachers, teacher educators and heads of institutions into the concepts and processes of curriculum design in a systematic manner;

(b) to provide them with an opportunity to develop and apply the methodologies and techniques of curriculum design which are appropriate to technician education systems in their own countries;

(c) to determine and evaluate different types of learning resources available and explore new resources;

(d) to evolve a framework for staff development and delineate staff development programmes which are appropriate to their countries;

(e) to apply the methodologies and techniques of curriculum design and staff development to specific problems within the participants' national setting.

■

Governing Board Members Meeting Participants during course.

Course Strategies

The constituency of the Staff College is key persons responsible for technician education planning and administration, management of technician institutions, teacher development and senior teachers who play a leadership role in educational processes. The objective of the courses addressed to them is therefore not merely to instruct the participants in the knowledge and techniques of the relevant subject-fields in a formal way. It is to develop in them cognitive and problem-solving capabilities which will help them to initiate and manage improvements in their technician education and training systems.

To this end, the strategies of the Staff College courses include a variety of participant-centred learning experiences whose significant influence comes not piecemeal, theory by theory, concept by concept, finding by finding, but cumulatively through altering the conceptions and ultimately, through a total design of technician education. Illustrative of the strategies are:

Main Theme Presentations by the College faculty to expound and explain the current state of knowledge about different aspects of technician education and training.

Syndicate Work centred round structured tasks, case studies, individual/group exercises which enable participants to develop correct perspectives about technician education and training, analyse problems in depth and find methological approaches for resolution of problems. The reports of syndicates are discussed and debated

Staff College Library and Documentation Unit.

on in plenary sessions to facilitate further exchange of ideas and experiences.

Self-Study to provide an opportunity to participants to reflect back and evaluate their own experiences and refresh their knowledge and understanding.

Project Work to enable each participant to select a problem of importance to his country, study it in detail and prepare a report. The project work also enables participants to synthesise the knowledge and experience gained on the course and apply them in a specific context.

Open Forums at which participants take the initiative to identify key issues on cross country basis and resolve them through discussions and reach a range of solution requirements.

All these strategies imply close and continuous interaction among the participants and between participants and College faculty. The interaction is not restricted to scheduled College hours, it extends to outside College hours since by design all participants are housed together during the course.

Although each course has various specialised components according to the subject areas covered, it is the integration of the components into a coherent whole as a system which characterises the course. As a sequel, College faculty members are not merely concerned with their respective specialisations, but with the logic, structure and interlinked components of the whole course. This implies again that they work as a team, complementing and reinforcing one another, both at the planning stage and during implementation of each course. ■

Participants visit technical Institutes and Industry in Singapore.

Country Courses

In addition to common problems with all other countries in the Colombo Plan region, each country is confronted with specific problems of its own depending upon the state of its technician education and training system. These problems too influence the pace and direction of progress of the system concerned and is equally important that adequate solutions should be found for them.

The Staff College has therefore a dual responsibility: one, to identify common problem areas in technician education and training, which are of importance to all countries in the region and conduct courses for the key personnel nominated by the countries; another, to conduct courses in individual countries, specifically addressed to the problems of the countries concerned.

The College-based courses and in-country courses are complementary. The importance of country courses is underscored by the fact that the courses deal with specific priority problems in the context of each country.

After a detailed on-the-spot survey of each country's problems and in cooperation with the Government concerned, eight country courses have been conducted so far:

Thailand : Technician Education Planning, Curriculum Design and Teacher Development.

Sri Lanka : Technician Curriculum Design and Staff Development

Iran : Planning, Designing, Equipping and Managing Technician Institutions, including Staff Development

Indonesia : Technician Curriculum Evaluation and Teacher Development

India : Technician Institution Building Processes and Resource Utilisation

Singapore : Testing and Examining in Technician Education

Pakistan : Technician Curriculum Implementation, including Curriculum Evaluation and Staff Development

Malaysia : Technician Curriculum Analysis and Implementation, including Laboratory Work.

Each of these courses (two weeks in duration) was an intensive study of the chosen field and of particular significance in the context of technician education development in the country concerned. For instance, Indonesia has designed recently a new curriculum for industrial technicians and needed its technician teachers to be trained in evaluating the curriculum so that they could identify its strengths and weaknesses during implementation and get the necessary feedback to make improvements. Likewise, Pakistan too which has prepared revised technician curricula on national basis wished its polytechnic senior teachers to be trained in the processes of curriculum implementation, like teaching-learning strategies, curriculum analysis and evaluation. All other courses too had a specific objective ***vis a vis*** problems of technician education improvement in the countries concerned.

Apiece with this objective is that each country course should result in well defined outcomes which will lead on to further work in each country. This implies follow-up courses by the Staff College. ■

Participants in Courses

One hundred and sixty-seven persons nominated by Colombo Plan regional countries have participated in the seven College-based courses. These persons represent a wide range of experiences as well as levels of responsibilities in technician education and training. Among the participants are Presidents/Directors–General/Directors of Technical and Vocational Education, Principals of Technician Institutions, senior teachers and teacher educators and training officers in industry. This is a complete cross section of key persons responsible for technician education in the regional countries for whom the Staff College has been set up.

No course, however, is an end in itself. It is a means of improving and developing technician education systems on a continuing basis. It is therefore important for the Staff College to know how the participants are using the knowledge and experiences gained on the courses in their respective spheres of work. The Staff College has therefore devised mechanisms for keeping in touch with the participants not only to get their feedback on the courses attended, but about the type of development work in which they are engaged. The feedback will enable the Staff College to extend its services to the regional countries on a broad front.

Two hundred and eighteen persons have attended the eight country courses conducted in Thailand, Sri Lanka, Iran, Indonesia, India, Pakistan, Singapore and Malaysia.

Thus, the constituency actually covered by the Staff College courses up to 30 June, 1977 consists of 385 persons in all the 21 countries of the Colombo Plan region. ■

Research and Development

In addition to training courses, the Staff College functions include research and development in technician education and training. Although the Staff College has been functional for just over two years and the faculty is still in process of being built up, a beginning has been made with research projects which are in progress:

(a) Technician Education System Design with particular reference to Industry-Institution Cooperation.

(b) Technician Curriculum Design Processes based on Technician Activity Analysis

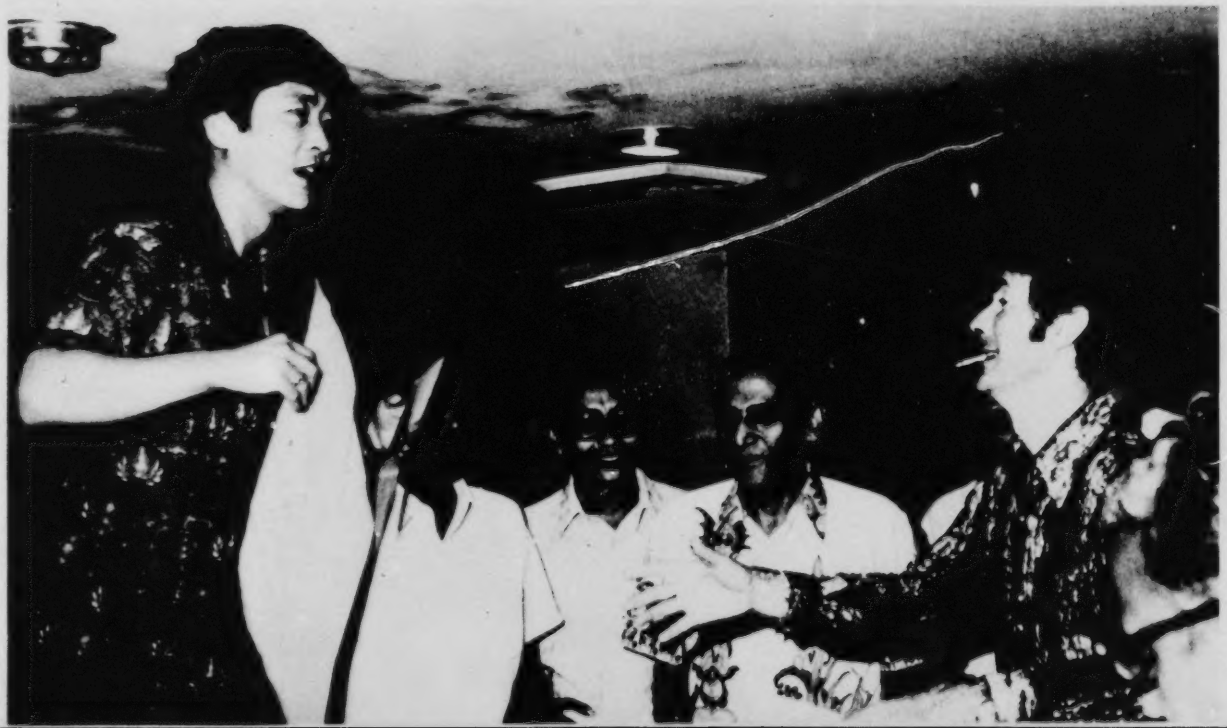
(c) Modular Approaches to In-Service Training of Technician Teachers.

The emphasis in these research projects is not on evolving any new theories or concepts, but on developing action-oriented plans which will help regional countries in improving their technician education systems on a rational basis. Future research programmes too will be centred round real problems which will be identified in consultation with regional countries. The following areas are regarded as of particular importance:

Design of objective-based Technician Apprenticeship Programmes with complementary Educational Courses.

Learning Resources Development with particular reference to Production of Student-Centred Learning Packages.

Participants visit Technical Institutes and Industry in Singapore.



Social Interaction and Lasting Friendships are built up during course.

Systematic Approach to Items Banks for Testing and Evaluation in Technical Institutions.

New Approaches to Laboratory Work in Technician Curricula.

Organisational Development in Technician Institutions with emphasis on Staff Development.

Developmental work in technician education and training must follow from two complementary activities already in progress (a) what the participants on College-based courses do after attending the courses, in their respective spheres of work and the type of further assistance which they need from the Staff College; and (b) plan of further work as evolved from each country course. As explained earlier, the Staff College is in close touch with all previous participants not only to get feedback from them about the courses which they attended but to know about the kind of technician education work in which they are engaged and how the Staff College may be able to assist them in their new activity. Similar follow-up is undertaken for country courses.

Another aspect of developmental work relates to innovations in technician education and training. The Staff College has planned to have Associate Institutions in each country through which innovations already in progress may be evaluated, documented and disseminated, and new innovations tried out. In extension of the associateship between the Staff College and technician institutions other developmental activities may be undertaken, especially in the area of instructional materials, testing and examining, and technician activity analysis for curriculum design. In course of time, Associate Institutions may also become extension centres of the Staff College for a wider range of developmental activity. ■

Social Interaction and Lasting Friendships are built up during course.

Coffeebreak is not only for respite during course, but for informal discussions as well.

Library and Documentation

The Staff College library has been built up as a core facility for the College faculty and course participants, with emphasis on education, management, economic planning and human resource development. So far, over 3,000 volumes have been acquired for the library. In addition, the library is receiving 139 periodicals. Five hundred and thirty units of AV materials comprising cassette tapes, filmstrips, microfiche, slides, transparencies and reel tapes have also been acquired.

One of the important functions of the Staff College is to act as a clearing house for the collection, analysis and dissemination of information on all aspects of technician education and training. To adequately perform this function, the Staff College has set up a Documentation Unit, practically the only one of its kind in the region. The Documentation Unit as a store-house of resource materials has over 1,000 thematic and background papers, case studies, country reports, model curriculum documents and teaching-learning support materials. The resource materials cover the following areas:

Human Resource Development and Manpower Planning

Technician Education Planning, Policies and Administration.

Curriculum Design and Development.

Teaching-Learning Processes.

Testing and Evaluation.

Teacher Training and Staff Development.

Planning, Equipping and Managing Technician Institutions.

Technical Institution-Industry Cooperation.

The thematic papers have been prepared by the College faculty and Visiting Specialists.

In addition, the Documentation Unit has a classified collection of all syndicate reports produced during the courses along with participants' project reports which reflect an impressive range of ideas and experiences on different aspects of technician education and training.

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Staff College Faculty

The Staff College faculty consists of experts whose services have been provided by Participating Governments and CFTC for stated periods.

DIRECTOR: Dr L S Chandrakant

FACULTY:

Mr John Cabot (Australia) (October 1974 – January 1976 –)
Mr W A Barnett (New Zealand) (April 1975 – April 1977 –)
Prof P B Patil (India) (June 1975 –)
Mr Bashir A Parvez (Pakistan) (October 1975 –)
Mr L A Hough (CFTC) (April 1976 – July 1977)
Mr R D Drury (UK) (January 1977 –)
Mr D Chantrill (Australia) (May 1977 –)
Mr R Allaburton (Australia) (June 1977 –)

In addition to the resident faculty, visiting specialists invited both from the Colombo Plan regional countries and from outside have been closely associated with all the College courses. The association of visiting specialists has enriched inputs to the courses and provided the participants with an opportunity to evaluate their country's problems in the light of contemporary developments and experiences in other countries.

The Visiting Specialists have come from Australia, Canada, Japan, New Zealand, the United Kingdom, India, Indonesia, Pakistan, the Philippines, and Thailand. ■

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Staff College Funding and Aid

The basic operating costs of the Staff College (which exclude salary and allowances of the faculty and fellowships for course participants) are met by all Participating Governments according to a two-tier formula laid down for the purpose. According to the formula, those countries whose GNP is one billion U.S. dollars or more meet one full share each and others whose GNP is less than one billion dollars meet half share. Some countries, like Bangladesh, Bhutan, Burma, Laos and Fiji make only a symbolic contribution.

The Staff College is housed in Block A on the campus of the Singapore Institute of Education. The Singapore Government has renovated and furnished the building to meet the needs of the Staff College at a cost of about S$500,000. The accommodation includes conference hall, syndicate rooms, staff rooms, general office, library, document display room and audio-visual and graphics room.

Participants on the courses are housed in the RELC International House at Orange Grove Road, which is about two kilometers from the Staff College.

The salaries and allowances of the faculty are met by the Participating Governments/agencies which have provided their services. This is in addition to their contribution towards the annual basic operating costs of the College.

Since the College started functioning and up to 30 June 1977, the following aid has been received for library, equipment, fellowships etc.

Aid Received / Country	Equipment, Books, Vehicles	Fellowships	Others
Australia	US$11,600	US$26,560	–
Canada	CDN$25,870	CDN$57,000	CDN$30,000*
Japan	US$13,110	US$25,040	–
New Zealand	US$10,000	US$34,200	–
U.S.A.	US$10,000	US$30,970	–
U. K.	£ 4,000	£10,000	–
India	Rs 25,000	–	–
CFTC	–	US$70,000	–

(*For Faculty Associateship).

Staff College Governance

The Staff College possesses full juridical personality and has been declared to be an International Organisation by the Government of Singapore under The International Organisations (Immunities and Privileges) Act. It is administered by a Governing Board consisting of the representatives of the governments of participating countries along with the Director of the College and Director of the Colombo Plan Bureau in Sri Lanka as members ex-officio.

The 27 Participating Countries are:

Afghanistan, Australia, Bangladesh, Bhutan, Burma, Canada, Fiji, India, Indonesia, Iran, Japan, Kampuchea, Republic of Korea, Laos, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, the Philippines, Singapore, Sri Lanka, Thailand, the United Kingdom, United States of America and Vietnam.

An Academic Board, comprising the Director, as Chairman, and all other members of the faculty is responsible for planning and providing courses of study, admissions, resource materials and consultancy services, development and research projects and other academic aspects.

A number of specialists of standing in the field of technician education and training have been invited to serve as advisers with a view to heightening the sensitivity of the College to the needs of the region and increasing its effectiveness in meeting them. The current panel of advisers includes:

Mr J C Robson
Head, Division of Educational Methods and Resources
Department of Technical and Further Education
Government of N.S.W.
Sydney, Australia

Mr Victor J Sparrow
Director
Bolton College of Education (Tech)
Bolton, U.K.

Dr A Ramachandran
Secretary, Department of Science and Technology
Government of India, New Delhi, India

Drs Soenaryo
Director of Technical and Vocational Education
Ministry of Education and Culture
Government of Indonesia
Jakarta, Indonesia

Prof Choo Seok Cheow
Professor of Electrical Engineering
Faculty of Engineering
University of Singapore
Singapore

Dr Thanoo Swaengsakdi
Deputy Director General of Educational Techniques
Ministry of Education
Government of Thailand
Bangkok, Thailand

Staff College Governing Board

CHAIRMAN
H.E. Mr R N Birch (1974/75)
H.E. Mr J P Tripp (1975/76)
H.E. Mr R K Thomson (1976/77)
H.E. Mr Shinsuke Hori (1977/78)

VICE-CHAIRMAN
Mr Kwan Sai Kheong (1974/75)
H.E. Mr Delfin R Garcia (1975/76)
H.E. Mr Chamnong Phahulrat (1976/77)
H.E. Mr Jetn Sucharitkul (1977)
Mr Bashir A Bhatty (1977/78)

DIRECTOR
Dr L S Chandrakant

MEMBERS

AUSTRALIA
Mr N Hope (1974)
H.E. Mr R N Birch (1974-77)
H.E. Mr L Corkery

BANGLADESH
Mr A F Md Shamsuzzaman (1974-76)
Mr D S Yusuf Hyder

BRITAIN
H.E. Mr W J Watts (1974)
H.E. Mr J P Tripp

BURMA
U Myo Aung (1974-76)
U Kyi

CANADA
H.E. Mr C R Gallow (1974/75)
H.E. Mr R K Thomson

INDIA
H.E. Mr T Abraham (1974/75)
Mr H S Shahani (1974/75)
H.E. Mr V Siddharthacharry

INDONESIA
Drs Soenaryo
Mr Abdul Irsan

IRAN
Mr Mohammad Rabieh (1974)

JAPAN
H.E. Mr T Uomoto (1974/75)
H.E. Mr Shinsuke Hori

KHMER REPUBLIC
H.E. Mr K R L Wongsanith (1974)

REPUBLIC OF KOREA
Mr Hae Yung Chung (1974)
Dr Soh Jin Chull (1974/75)
Mr Yang Sei Hoon (1975)
H.E. Mr Lee Kew Sung

MALAYSIA
Mr Abdul Latiff bin Sahan

NEW ZEALAND
H.E. Mr R E B Peren (1974-76)
H.E. Mr G C Hensley

PAKISTAN
Mr Bashir A Bhatty

THE PHILIPPINES
H.E. Mr Delfin R Garcia

PAPUA NEW GUINEA
Mr Robin V Kumaina

SINGAPORE
Mr Ang Gee Bah (1974/75)
Dr Khoo Cheng Lim (1976)
Mr Lim Jit Poh

THAILAND
H.E. Mr Chamnong Phahulrat (1974-76)
H.E. Mr Jetn Sucharitkul

UNITED STATES OF AMERICA
H.E. Mr E M Cronk (1974/75)
Dr Robert Smail (1974/75)
Mr Felix S Bloch (1975-77)
Dr Thomas C Irvin
Mr Arthur C Bauman

REPUBLIC OF VIETNAM
Mr Troung Buu Dien (1974/75)

COLOMBO PLAN BUREAU
Mr I K McGregor (1974-76)
Miss Leonore E T Storar

Participation Pattern in Staff College Courses

Year	No. of Participants / Courses	Afghanistan	Bangladesh	Bhutan	Burma	Fiji	India	Indonesia	Iran	Korea	Malaysia	Maldives	Nepal	Pakistan	P.N.G.	Philippines	Singapore	Sri Lanka	Thailand	Cambodia	Laos	Vietnam	Hong Kong	Total	
1974-75	Study Conference for Senior Administrators 31.3.75 – 12.4.75	1	1	1	1	–	1	1	1	1	1	–	1	1	1	1	3	1	1	1	1	1	–	21	
	Total for 1974/75	**1**	**1**	**1**	**1**	**–**	**1**	**1**	**1**	**1**	**1**	**–**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**–**		**21**
1975-76	Technician Education Planning & Development 18.8.75 – 26.9.75	–	3	–	–	–	2	–	–	2	3	–	2	2	–	1	3	1	3	–	–	–	–	22	
	Study Conference of Directors of Technician Education 15.1.76 – 30.1.76.	1	1	1	1	1	2	1	2	1	1	–	3	2	–	2	2	1	2	–	–	–	–	24	
	Curriculum Design and Staff Development 8.3.76 – 30.4.76	1	2	–	1	–	2	2	–	–	2	–	1	2	1	2	2	2	2	–	–	–	–	22	
	Total for 1975/76	**2**	**6**	**1**	**2**	**1**	**6**	**3**	**2**	**3**	**6**	**–**	**6**	**6**	**1**	**5**	**7**	**4**	**7**	**–**	**–**	**–**	**–**		**68**

Year	No. of Participants / Courses	Afghanistan	Bangladesh	Bhutan	Burma	Fiji	India	Indonesia	Iran	Korea	Malaysia	Maldives	Nepal	Pakistan	P.N.G.	Philippines	Singapore	Sri Lanka	Thailand	Cambodia	Laos	Vietnam	Hong Kong	Total	
1976-77	Technician Education Planning & Development 5.7.76 – 14.8.76	1	–	1	1	–	3	2	2	2	2	–	–	2	–	2	3	1	3	–	–	–	–	25	
	Study Conference of Directors of Technician Education 8.11.76 – 24.11.76	1	2	–	1	1	3	2	2	2	2	–	1	2	1	1	1	2	3	–	–	–	1	28	
	Curriculum Design and Staff Development 1.2.77 – 31.3.77	1	2	–	1	–	2	2	–	2	2	–	1	3	–	2	3	2	2	–	–	–	–	25	
	Total for 1976/77	**3**	**4**	**1**	**3**	**1**	**8**	**6**	**4**	**6**	**6**	**–**	**2**	**7**	**1**	**5**	**7**	**5**	**8**	**–**	**–**	**–**	**1**		**78**
Total:	**1974/75 – 1976/77**	**6**	**11**	**3**	**6**	**2**	**15**	**10**	**7**	**10**	**13**	**–**	**9**	**14**	**3**	**11**	**17**	**10**	**16**	**1**	**1**	**1**	**1**		**167**

Participation Pattern in Country Courses

Year	Country	Course Title	Dates	Number of Participants
1975/76	Thailand	Technician Education Planning, Curriculum Design and Teacher Development	14 – 22 July 1975	40
	Sri Lanka	Technician Curriculum Design and Staff Development	16 – 27 Feb 1976	23
	Iran	Planning, Designing, Equipping and Managing Technician Institutions, including Staff Development	10 – 21 May 1976	23
		Total for 1975/76		86
1976/77	Indonesia	Curriculum Evaluation and Teacher Development	6 – 18 Sept 1976	24
	India	Technician Institution Building Processes and Resource Utilisation	14 – 25 Dec 1976	39
	Singapore	Testing and Examining in Technician Education	11 – 22 April 1977	25
	Pakistan	Technician Curriculum Implementation, including Curriculum Evaluation and Staff Development	18 – 30 April 1977	22
	Malaysia	Technician Curriculum Analysis and Implementation, including Laboratory Work	13 – 25 June 1977	22
		Total for 1976/77		132
		Total: 1975/76 – 1976/77		218

List of Participants in Staff College Courses

(MARCH/APRIL 1975 – JUNE 1977)

AFGHANISTAN

1. Mr Mohammad Hassan Muti,(Attended twice)
   Director-General of Technical and Craft Education
   Vocational Education Department
   Ministry of Education
   Kabul

2. Mr Akhtar M Paktiawal
   Vice-President
   Department of Vocational Education
   Ministry of Education
   Kabul

3. Mr Nasruddin Bakhtari
   Principal
   Baghlan Agricultural School
   Baghlan

4. Dr Akram Hemayatollah
   President of Vocational Education
   Department of Vocational Education
   Ministry of Education
   Kabul

5. Mr Habibullah Husseini
   Director-General of Vocational Agricultural Education
   Department of Vocational Education
   Ministry of Education
   Kabul

BANGLADESH

6. Dr Wahiduddin Ahmad
   Director of Technical Education
   Directorate of Technical Education
   Dacca
   (Presently, Vice Chancellor Bangladesh
   University of Engineering and Technology)

7. Mr Mohammad Abdul Halim
   Principal
   Chittagong Polytechnic Institute
   Chittagong

8. Mr Mohammad Munirul Huq
   Assistant Chief, Manpower Section
   Planning Commission
   Dacca

9. Mr Mohammad Tufa Chand Miah
   Deputy-Director of Technical Education
   Directorate of Technical Education
   Dacca

10. Mr M A Sattar
    Director of Technical Education
    Directorate of Technical Education
    Dacca

11. Mr Emdadul Huq Chowdhury
    Principal
    Polytechnic Institute
    Feni

12. Mr Ramananda Mollik
    Project Director
    Directorate of Technical Education
    Dacca

13. Prof M A Bari
    Principal
    Engineering College
    Chittagong

14. Mr A K Bhuiyan
    Project Director, IDA Credit
    Directorate of Technical Education
    Dacca

15. Mr Rezaul Karim
    Director
    Sweden-Bangladesh Institute of Technology
    Chittagong

16. Mr Md Shahjahan
    Principal
    Khulna Polytechnic
    Khulna

BHUTAN

17. Mr Parasuram Sharma
    Assistant Director of Education
    Ministry of Development
    Thimphu

18. Mr Nado Rinchen
Officer on Special Duty (Education)
Education Department
Ministry of Development
Thimphu
(Presently, officiating Director of Education, Education Department)

19. Mr Lakpa Tsering
Officer-in-Charge
Technical Education Cell
Education Department
Ministry of Development
Thimphu

BURMA

20. U Ohn Maung
Principal
Government Technical Institute
Insein

21. U Sein Win
Principal
Government Technical Institute
Kalaw Southern Shan State

22. U Tin Maung Oo
Head of Department
Technical Teacher Training Unit
Government Technical Institute
Insein

23. U Kyaw Zan
Principal
Government Technical Institute
Chauk

24. U Soe Maung
Principal
Government Technical Institute
Mandalay

25. U Hla Myint
Lecturer, Technical Teacher Training Unit
Government Technical Institute
Insein

FIJI

26. Dr A V Swamy
Principal
Derrick Technical Institute
Samabula, Suva

27. Mr M Pandaram
Principal Education Officer
Ministry of Education, Youth and Sport
Suva

HONG KONG

28. Mr Andrew Kingwell
Deputy Director of Education (Technical)
Education Department
Hong Kong

INDIA

29. Shri V R Reddy
Director and Central Apprenticeship Advisor
Ministry of Education and Social Welfare
New Delhi

30. Mr S A Abbas
Principal
University Polytechnic
Aligarh Muslim University
Aligarh

31. Mr Rajeshwar Prasad
Principal
Government Polytechnic
Ranchi

32. Dr S D Gogoi
Director of Technical Education
Government of Assam
Assam
(Presently, Vice Chancellor, Dibrugath University)

33. Mr G S Kadu
Director of Technical Education and
State Apprenticeship Adviser
Bombay

34. Prof Man Mohanlal Malhotra
Professor and Head of Curriculum Development
Technical Teachers' Training Institute
Chandigarh

35. Mrs Ashalata Kulshrestha
Principal
Government Polytechnic for Girls
Ahmedabad, Gujrat

36. Mr Rajkumar Phanindra Singh
Controller of Technical Education, Manipur
and Principal, Government Polytechnic
Imphal, Manipur

37. Mr S K Handa
Assistant Educational Adviser (Technical)
Ministry of Education and Social Welfare
Southern Regional Office
Madras

38. Prof M M Rahman
Principal
Rajagopal Polytechnic
Gudiyattam, South India

39. Mr V N Datta
Assistant Educational Adviser (Technical)
Ministry of Education and Social Welfare
Bombay

40. Mr Satya Naran Goel
Director of Technical Education
Rajasthan, Jodhpur

41. Mr Mohi Uddin Shah
Director, Training and Employment
Government of Jammu and Kashmir
Srinagar-Kashmir

42. Mrs A Kamala
Professor, Curriculum Development Cell
Government Polytechnic
Nellore, Andra Pradesh

43. Mr Kul Bhushan Raina
Professor and Head
Electrical Engineering Department
Technical Teachers' Training Institute
Chandigarh

INDONESIA

44. Mr Bagiono Djokosumbogo
Director
Technical College Pilot Project
Semarang

45. Drs Jorlin Pakpahan
Head of Planning and Supervision Division
Directorate of Technical and Vocational Education
Jakarta

46. Mr Wuryono Sutarno
Principal and Project Leader
STM Pembangunan
Rawanangun, Jakarta

47. Mr Soeharmono
STM Pembangunan
Semarang

48. Miss Siti Atikah
Director
Vocational Training Centre
Jakarta

49. Mr Mohamad Bakri
Director of Technical Training Centre
Bandung

50. Mr N Winnetou
Chief, Division of Technical Education
Department of Education and Culture
Jakarta

51. Mr Wahyudi Ruwiyanto
Head of Regional Vocational and
Technical Education in South Sulawesi, and
Director of Pioneer Project of Development
Senior Technical School
Ujung Pandang

52. Drs Sofyan Habibullah
Supervisor, Secondary Vocational Education
Regional Office of Department of Education
and Culture
West Sumatra

53. Ir Yutadi
Principal
Technical Training Centre
Surabaya

IRAN

54. Miss Farideh Navabi
Responsible Expert of Rural Vocational
Training Bureau
Ministry of Education
Teheran

55. Mr Gholam Hosein Gholdmi Saeedi
Chief
Babol Iran Institute of Technology
Babol

56. Mr Pesaran Behbahani Reza
Director
Institute of Technology and Technical School
Rezaieh

57. Mr Azar Keyvan Dashtpoor
Principal
Institute of Technology
Aliabad, Gorgan

58. Miss Robabeh Masaodian
Director
Institute of Statistics and Accounting
Teheran

59. Mr Esmail Navi
Principal
Institute of Technology and Technical School
Mashhad

60. Mr Mahmoud Mavadat
Director
Technical School 11
Usefabad, Teheran

KOREA

61. Mr Lee Jong Soo
Director, Training Division
Korean-German Busan Vocational Training Institute
Busan

62. Mr Jang-Bock Lee
Head of Academic Affairs
Gyeong-gi Technical Junior College
Seoul

63. Mr Hyun Shik Oh
Consultant
Central Vocational Training Institute
Inchon

64. Mr Suh Sang Sun
Chief, Vocational Training Division
Office of Labour Affairs
Seoul

65. Mr Lee Sang Joe
Procurement Officer (Vocational Training Equipment)
Vocational Training Bureau
Office of Labour Affairs
Seoul

66. Mr Kim Ki Yong
Professor
Hong Ik University
Seoul

67. Mr Hong Sun Chul
President
Gyeong-gi Junior Technical College
Seoul

68. Mr Myoung Joong Jin
Director
Goldstar Tele-Electric Co Vocational Training Centre
Seoul

69. Dr Park Man-Sik
Professor of Architecture
Chung Nam National University
Daejeon

70. Dr Maeng Ki-Suck
Professor, College of Engineering
Chung Nam National University
Daejeon

MALAYSIA

71. Mr V Murugasu
Director, Technical and Vocational Education Division
Ministry of Education
Kuala Lumpur

72. Mr Ahmad bin Hashim
Principal Designate
Mara Vocational Institute
Perak

61

73. Mr Abdul Rahim bin Busu Mat Nor
Principal Designate
Kuantan Polytechnic
Pahang
(Presently, Acting Deputy Director Technical and Vocational Education Division Ministry of Education)

74. Mr Abu Sapian bin Jasin
Lecturer (Electronics)
Technical Teachers' Training College
Kuala Lumpur

75. Mr Mohamed Rafik Khan
Senior Organiser
Technical Education Division
Ministry of Education
Kuala Lumpur
(Presently, Assistant Director,
Technical and Vocational Education Department)

76. Mr K Ghanaguru
Head, Trade Course Department
Maktab Perguruan Teknik
Kuala Lumpur

77. Mr Omar bin Man
Organiser
Technical and Vocational Education Division
Ministry of Education
Kuala Lumpur

78. Mr Badiozaman @ M Idris bin Abdul Kahar
Course Tutor, Electrical Engineering (Power)
School of Engineering
Institiut Teknologi Mara
Shah Alam, Selangor

79. Mr Khoo Soo Hock
Director
D.I.D. Research Station
Drainage and Irrigation Department
Selangor

80. Mr Misa bin Kalani
Head of Department
Politeknik Kuantan
Kuantan, Pahang

81. Mr Rost bin Saruwono
Principal
Industrial Training Institute
Kuala Lumpur

82. Mr Mohd Hashim bin Daud
Head, Civil Engineering Department
Kuantan Polytechnic
Kuantan, Pahang

83. Mr Yon Tian Tin
Lecturer in Automotive Engineering
Maktab Perguruan Teknik
Kuala Lumpur

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NEPAL

84. Mr Lava B Pradhan
Joint Secretary
Ministry of Education
Kathmandu

85. Mr Daibagya Ratna Bajracharya
Head of Mechnical Section
Institute of Engineering
Tribhuvan University
Kathmandu

86. Mr Shiva Raj Pant
Assistant Dean
Institute of Engineering
Tribhuvan University
Kathmandu

87. Mr B P Rajbhandari
Chief, Planning Division
Tribhuvan University
Kathmandu

88. Dr K B Rajbhandary
Dean
Institute of Agriculture and Animal Science
Central Campus
Rampur

89. Mr Kul Ratna Tuladhar
Dean
Institute of Engineering
Tribhuvan University
Kathmandu

90. Mr Narayan Govind Halwai
Senior Engineer
Institute of Engineering
Tribhuvan University
Kathmandu

91. Mr Gauri Nath Rimal
Dean
Institute of Engineering
Tribhuvan University
Kathmandu

92. Mr Bishnu Dass Manandhar
Lecturer in Civil Engineering
Institute of Engineering
Lalitpur, Kathmandu

PAKISTAN

93. Mr Mohammad Ali
Additional Educational Secretary
Government of Sind
Karachi
(Presently, Chairman Sind Board of
Technical Education)

94. Mr Mahmood Ahmad Khan
Principal
Government College of Technology
Rawalpindi
(Presently, Chairman Punjab Board of
Technical Education)

95. Mr Ihsan-ul-haq Toor
Principal
Government College of Technology
Lahore
(Presently, General Manager State Cement
Corporation of Pakistan Ltd.)

96. Mr Mohammad H Mama
Director of Technical Education
Government of Sind
Karachi

97. Mr Waqar Ahmed
Director of Technical Education and Chairman
NWFP Board of Technical Education
Peshawar

98. Mr Safder Hussain Gurmani
Principal
Government Polytechnic Institute
Dera Ismail Khan

99. Mr Imamali Soomro
Principal
Government College of Technology
Khairpur (Sind)

100. Mr Masood-ul-Hassan Qureshi
Head of Department (Mechanical)
Government Polytechnic Institute
Quetta

101. Mr Moula Bux Qureshi
Vice-Principal
Government College of Technology
Karachi

102. Mr Abdul Hamid Shaikh
Director
Directorate of Technical Education
Punjab, Lahore

103. Mr M Inamul Haque
Director
Swedish Pakistani Institute of Technology
Karachi

104. Mr Abdul Qahar Khalil
Head of Department (Electrical)
Government Polytechnic Institute
Peshawar

105. Mr Ghulam Hussein Soomro
Head of Department (Electrical)
Government College of Technology
Hyderabad

106. Mr Mohammed Amin Qureshi
Principal
Government Polytechnic Institute
Sahi-Wal

PAPUA NEW GUINEA

107. Mr Joseph Saruva
Superintendent of Inspections (Technical)
Division of Technical Education
Ministry of Education
Konedobu

108. Mr John R Cook
Executive Officer, Curriculum Unit
Department of Education H.Q.
Konedobu
(Presently, Senior Curriculum officer
Technical Division HQ)

109. Mr Les Canute
Training Controller
P & T Department
Boroko

PHILIPPINES

110. Mr Andres R Asistin
Director of Vocational Education
Bureau of Vocational Education
Department of Education and Culture
Manila

111. Mr Manuel Remulla
Key Consultant in Technician and
Vocational Education
Educational Development Projects
Implementing Task Force
Makati, Rizal

112. Dr Frederick So Pada
Vice-President and Dean
Graduate Education Department
Eulogio "Amang" Rodriguez Institute
of Science and Technology
Manila

113. Mr Zacarias R Maribbay
Chief, National Demonstration Training Division
National Manpower Skills Centre
Rizal

114. Dr Bernardo F Adiviso
College Dean for Undergraduate Studies
Philippine College of Arts and Trades
Manila

115. Mr Leoncio M Jamora, Jr
Consultant
Educational Development Projects
Implementing Task Force (EDPITAF)
Makati, Rizal

116. Mr Sulpicio P Cartera
Superintendent
Negros Occidental School of Arts and Trades
Negros Occidental

117. Mr Despojo Teodolfo
Vocational College Superintendent
Davao School of Arts and Trades
Davao City

118. Mr Robinson Ylagan
Assistant Director
Department of Education and Culture
Manila

119. Mr Pamo Lomodag Dimnatang
Superintendent
Lanao School of Arts and Trades
Marawi City

120. Mr Eldeguardo Perez Vinluan
Senior Manpower Skills Development Officer
National Manpower and Youth Council
Rizal

SINGAPORE

121. Mr Khong Kit Soon
Principal
Ngee Ann Technical College, Singapore

122. Mr Chan Siew Poh
Head, Department of Mechnical Engineering
Ngee Ann Technical College, Singapore

123. Mr F A Vasenwala
Head, Mechanical and Production Engineering Department
Singapore Polytechnic, Singapore

124. Mr Ho Yoke Lun
Superintendent in charge of Electronics Engineering
Industrial Training Board, Singapore

125. Mr Khoo Kay Chai
Principal Lecturer
Singapore Polytechnic, Singapore
(Presently, Acting Principal Singapore Polytechnic)

126. Mr Tan Guan Eng
Head, Maths/Science Division
Singapore Polytechnic, Singapore

127. Mr R T Tambyah
Director
Singapore Technical Institute, Singapore

128. Mr Yip Seck Weng
Divisional Manager
Telecentre (Telecommunication Training Centre)
Singapore

129. Mr Lin Shih Hsiang
Senior Lecturer
Electrical and Electronic Engineering Department
Ngee Ann Technical College, Singapore

130. Mr Randolph Chong
Superintendent (Electrical)
Industrial Training Board, Singapore

131. Dr Yip Loun Cheong
Head of Division
Chemical Process Technology Division
Singapore Polytechnic, Singapore

132. Mr Chao Peh
Head of Civil Engineering and Building Department
Singapore Polytechnic, Singapore

133. Mr Lee Ser Tat
Head, Mechanical Engineering Department
Singapore Technical Institute, Singapore

134. Mr Ng Chong Guan
Training Manager
Bukit Merah Vocational Institute, Singapore

135. Mrs Elsie Koh Chen Chee
Curriculum Development Officer
Industrial Training Board, Singapore

136. Mrs Theresa Lim Mun Sim
Principal Lecturer
Civil Engineering and Building Department
Singapore Polytechnic, Singapore

137. Mr Yuk Wai Shun
Principal Lecturer
Mechanical Engineering Department
Ngee Ann Technical College, Singapore

SRI LANKA

138. Mr R Paskaralingam
Additional Secretary
Ministry of Education
Colombo

139. Mr Dharmasiri Amarasinghe
Director of Education
Technical Education Branch
Ministry of Education
Colombo

140. Mr K M Dalton Perera
Principal
Sri Lanka Technical College
Colombo

141. Dr C Patuwathavithane
Head, Mechanical Engineering Department
University of Sri Lanka
Katubedda Campus, Moratuwa
Colombo

142. Mr D A M Dassanayake
Chief Education Officer
Technical Education Curriculum Development Unit
Sri Lanka Technical College
Colombo

143. Mr M Cecil T Fonseka
Chief Education Officer
Technical Education Branch
Ministry of Education
Colombo

144. Prof D S Wijeyesekera
Professor of Civil Engineering
University of Sri Lanka
Katubedda Campus
Moratuwa, Colombo

145. Prof S Karunaratne
Dean of Engineering and Architecture
University of Sri Lanka
Katubedda Campus
Moratuwa

146. Mr S M Jayatilake
Principal
Polytechnic Institute
Badulla

147. Mr A Sithamparanathan
Lecturer
Hardy Senior Technical Institute
Amparai

THAILAND

148. Dr Thanoo Sivaengsakdi
Director
Technical Colleges Division
Department of Vocational Education
Ministry of Education
Bangkok
(Presently, Deputy Director General,
Department of Educational Techniques)

149. Mr Prasert Nonpala
Promotion Section Chief, Colleges Division
Department of Vocational Education
Ministry of Education
Bangkok

150. Mr Sricreua Povatong
Director
Northern Bangkok Engineering Institute
Bangkok

151. Mr Pin Sindhusake
Head of Civil Technology Department
Bangkok Technical Institute
Bangkok
(Presently, Director Vocational Teacher's College
Bangkok)

152. Mr Nakorn Srivicharn
Director of Utenthawal Technical Institute
Bangkok

153. Mr Pramodya Kittipongse
Director of Planning Division
Department of Vocational Education
Ministry of Education
Bangkok

154. Mrs Udomrat Jirachaipravit
Head of Marketing Department
Bangkok Technical Institute
Bangkok

155. Mr Charoen Thitiluck
Head, Mechanical Power Technology Division
Bangkok Technical Institute
Bangkok

156. Mr Artorn Chandavimol
Supervisor
Department of Vocational Education
Ministry of Education
Bangkok

71

157. Mr Arnob Prachaiwongsong
Director
Patumwan Technical Institute
Bangkok

158. Mr Srisot Panich
Head, Department of Instruction
Vocational Teachers' College
Bangkok

159. Mr Sophon Sangpairoj
Director
Northern Technical Institute
Chiang Mai

160. Mr Tongpoon Ruamsap
Director
Pisanuloke Vocational College
Pisanuloke

161. Mr Supote Sookgamol
Director, Division of Colleges
Department of Vocational Education
Ministry of Education
Bangkok

162. Mr Decha Sirirat
Supervisor, Supervisory Unit
Department of Vocational Education
Ministry of Education
Bangkok

163. Mr Seg Thongoun
T and I Supervisor
Supervisory Unit
Department of Vocational Education
Ministry of Education
Bangkok

KHMER REPUBLIC (KAMPUCHEA)

164. Mr Ty Varasidh
Vice-Rector
University of Technology
Phnom Penh

LAOS

165. Mr Syhanath Khamphat
Director of Technical and Vocational Education
Ministry of Education
Vietianne

VIETNAM

166. Mr Do-Thanh-Long
Director
Vocational Teacher Training Division
College of Education
Thu Duc Polytechnic University
Saigon

(After the first Course in March/April, 1975, Kampuchea, Laos and Vietnam have not participated in the Staff College programmes)

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Visiting Specialists Who Assisted On Staff College Courses

Study Conference of Directors of Technical Education

1. Mr V J Sparrow
   Director
   Bolton College of Education (Technical)
   Bolton, United Kingdom

2. Mr J Colin Robson
   Head, Division of Educational Methods and Resources
   Department of Technical and Further Education
   New South Wales, Australia

3. Prof Y Saran
   Principal
   Technical Teachers' Training Institute
   Bhopal, India

4. Mr Bashir A Parvez
   Director of Technical Education
   Government of Punjab
   Pakistan

5. Dr Thanoo Swaengsakdi
   Deputy Director General
   Department of Educational Techniques
   Ministry of Education
   Bangkok, Thailand

6. Mr A G Mufti
   Joint Secretary
   Ministry of Science and Technology
   Islamabad, Pakistan

7. Mr W E Buckley
   Principal
   Warrington Technical College
   Warrington, United Kingdom

8. Mr A MacLennan
   Former Director
   Huddersfield College of Education (Technical)
   Huddersfield, United Kingdom

9. Dr Jose R Vergara
   President
   Philippine College of Arts and Trades
   Manila, The Philippines

10. Dr Somchub Chaiyavej
    Dean, Faculty of Engineering
    King Mongkut's Institute of Technology
    Bangkok, Thailand

Course in Technician Education Planning and Development

1. Prof A P Jambulingam
   Principal
   Technical Teachers' Training Institute
   Madras, India

2. Prof C S Jha
   Director
   Indian Institute of Technology
   Karagpur, India

Course in Curriculum Design and Staff Development

1. Mr A MacLennan
   Former Director
   Huddersfield College of Education (Technical)
   Huddersfield, United Kingdom

2. Prof T K Vaidyanathan
   Principal
   Technical Teachers' Training Institute
   Chandigarh, India

3. Prof A L Titchener
   Dean of Engineering
   The University of Auckland
   School of Engineering
   Auckland, New Zealand

4. Mr Reginaldo L Junia
   Project Coordinator
   Educational Development Projects Implementing Task Force (EDPITAF)
   Manila, The Philippines

5. Drs Soenaryo
   Director of Technical and Vocational Education
   Ministry of Education and Culture
   Jakarta, Indonesia

Participants and Faculty at Course Welcome Lunch.

6. Prof H W Beatty
   Assistant Director of Practice Teaching
   Faculty of Education
   University of Western Ontario
   Canada

7. Mr C V Hancock
   Head, Learning Resources Unit
   Bolton College of Education (Technical)
   Bolton, United Kingdom

8. Mr Jiro Yoshio
   Lecturer, Department of Technical Education
   Tokyo Gakugei University
   Tokyo, Japan

9. Prof Shuei Sakihama
   Professor of Technical Education
   University of the Ryukyus
   Okinawa, Japan

10. Prof K Sitaramarao
    Professor of Mechanical Engineering
    Curriculum Development Unit
    Technical Teachers' Training Institute
    Madras, India

Members of family of Faculty join participants' Social Function.